IN THE CLAIMS:

Please cancel claims 6-10 without prejudice to the Applicant's rights to pursue the subject matters in a future application. Please add new claims 12-29:

1. (original) An human antibody, or its functional fragments, against the HCV E2 protein characterized in having an *in vivo* neutralizing activity.

2. (original) Antibody according to claim 1, being the antibody e137 characterized by having the following sequences of variable parts of the heavy chain and the light chain:

   e 137 Heavy chain (HC)

   LLEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPGQGLEWMGGITPIIGIA
   NYARNFQDRVTITADESTSTVYMEVRRLRSEDTAVYYCAKTSEVTATRGRTFFYSA
   MDVWGQGT

   e 137 Light chain (LC)

   MAELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASTLQS
   GVPSRFSGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT

3. (original) Antibody according to claim 1 being the antibody e301 characterized by having the following sequences of variable parts of the heavy chain and the light chain:

   e 301 Heavy chain (HC)

   LLEQSGSEVKKPGSSVRVSCTTSGGTLSDYGFNWLRQAPGQGPEWMGGIIPLFRRT
   TYGQKFQGRLTITADESTGATYMELSSLRSDDTAVYYCAREKVSVLTGGKSLHYFE
   YWGKGT

   e 301 Light chain (LC)

   MAELTQSPATLSVSPGERATLSCRASQSVSSRLAWYQQKRGQAPSLLIYDTSSRAT
   GVPARFSASGSGTQFTLTISSLQSEDFALYYCQQYNDWPSTFGQGT

4. (canceled)

5. (canceled)

6. (canceled)

7. (canceled)

8. (canceled)

9. (canceled)

10. (canceled)

11. (canceled)

12. (new) A method for validating anti-HCV vaccines using the antibody according to claim 1.

13. (new) A method for validating anti-HCV vaccines using the antibody according to claim 2.

14. (new) A method for validating anti-HCV vaccines using the antibody according to claim 3.

15. (new) A nucleic acid coding for the antibody according to claim 1.

16. (new) A nucleic acid coding for the antibody according to claim 2.

17. (new) A nucleic acid coding for the antibody according to claim 3.

18. (new) A recombinant expression vector expressing the antibody of claim 1 in prokaryote or in eukaryote cells.

19. (new) A recombinant expression vector expressing the antibody of claim 2 in prokaryote or in eukaryote cells.

20. (new) A recombinant expression vector expressing the antibody of claim 3 in prokaryote or in eukaryote cells.

21. (new) A recombinant vector further comprising a nucleotide sequence coding for a signal peptide, substantially contiguous with the sequence coding for the antibody of claim 1, able to export this antibody out of the cell environment.

22. (new) A recombinant vector further comprising a nucleotide sequence coding for a signal peptide, substantially contiguous with the sequence coding for the antibody of claim 2, able to export this antibody out of the cell environment.

23. (new) A recombinant vector further comprising a nucleotide sequence coding for a signal peptide, substantially contiguous with the sequence coding for the antibody of claim 3, able to export this antibody out of the cell environment.

24. (new) A method of using the recombinant vector according to claim 21 in gene therapy.

25. (new) A method of using the recombinant vector according to claim 22 in gene therapy.

26. (new) A method of using the recombinant vector according to claim 23 in gene therapy.

27. (new) A composition for anti-HCV therapy comprising in a therapeutically effective amount at least one of the antibodies according to the claims.

28. (new) A composition according to claim 27 for topical use in gel, creme, ointment and ovule formulations.

29. (new) A method for the determination of the presence of antibodies directed against different epitopes of the HCV E2 protein in a biological fluid comprising the steps of:

a) determining the presence of antibodies in said fluid able to inhibit the binding of specific human Fab directed against different epitopes of protein E2;and

b) correlating the presence of so titered antibodies with clinical characteristics of patients, such as prognosis, responsiveness to therapy, infectivity.